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United States Patent [19]**Flack et al.**[11] **Patent Number:** **6,114,397**[45] **Date of Patent:** **Sep. 5, 2000**[54] **GOSSYPOL FOR THE TREATMENT OF
CANCER**[75] **Inventors:** **Mary R. Flack**, Kensington; **Richard
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Marcus Reidenberg, Scarsdale, N.Y.[73] **Assignee:** **The United States of America as
represented by the Department of
Health and Human Services,**
Washington, D.C.[21] **Appl. No.:** **08/379,872**[22] **Filed:** **Jan. 27, 1995****Related U.S. Application Data**[62] **Division of application No. 07/551,353, Jul. 12, 1990, Pat.
No. 5,385,936.**[51] **Int. Cl.⁷** **A61K 31/12; A61K 31/11**[52] **U.S. Cl.** **514/682; 514/700**[58] **Field of Search** **514/700, 682**[56] **References Cited****PUBLICATIONS****Rao et al. (1985) *Cancer Chemother. Pharmacol.* 15:2-25.**
Tanphaichitr et al. (1984) *Biology of Reproduction*
31:1049-1060.**Band et al., *Gynecol. Oncol.* (1989), 32(3), 273-7 (abstract
only), 1989.****Rao et al, *Cancer Chemother. Pharmacol.* 15:20-25 1985.****Tso, *Cancer Lett.*, 24: 257-261 1984.****Qian, *Ann Rev Pharmacol*, 24: 329-60 (1984).****Kim et al, *Contraception* 312 : 5966-72 (1984).****Wu et al, *Cancer Research* 49, pp 3754-3758, Jul. 15, 1989.****Primary Examiner—Jerome D. Goldberg**
Attorney, Agent, or Firm—Leydig, Voit & Mayer, Ltd.[57] **ABSTRACT**

A method for treating cancer in a human, which comprises administering to the human subject an anti-cancer effective amount of a compound selected from gossypol, gossypol acetic acid, gossypolone, metabolites thereof, or physiologically acceptable salts thereof. Also included is a method for treating cancer in a human which comprises administering to the human subject an anti-cancer effective amount of any of the compounds listed above in combination with an anti-cancer effective amount of other conventional chemotherapeutic agents. Finally, the invention also encompasses a pharmaceutical composition comprising an anti-cancer effective amount of gossypol, gossypol acetic acid, or gossypolone, and an anti-cancer effective amount of a conventional chemotherapeutic agent, or combinations of the latter.

14 Claims, 2 Drawing Sheets